510(k) SUMMARY OF SAFETY AND EFFECTIVENESS Ethanol method for ADVIA® IMSTM

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of the Safe Medical Device Act of 1990 and 21 CFR 807.92.

The assigned 510(k) number is: K023184

1. Intended Use

The Bayer ADVIA IMS Ethanol (ETOH) assay is an in vitro diagnostic device intended to quantitatively measure ethanol concentration in human serum or plasma (Lithium Heparin). Measurement of ethanol is used in the diagnosis of ethanol (alcohol) toxicity and overdosc.

2. Predicate Device

Product Name	Reagent Part #	Calibrator Part #
TDx/Ethanol	9545	9545

3. Device / Method

Product Name	Reagent BAN	Calibrator BAN	
Bayer ADVIA® IMS™ Ethanol	01482481	08648547	

Imprecision

ADVIA IMS		
Level	Total	
(mg/dL)	CV(%)	
22.0	5.3	
88.9	2.2	
289.5	1.8	

TDx		
Level	Total	
(mg/dL) 40	CV(%)	
100	3.2	
250	3.2	

Correlation (Y=ADVIA IMS, X=comparison system)

COllegation (x ADIA)	LVIS A Compa	1 13011 3	stem/			
	Comparison			Syx		Sample Range
Specimen type	System (X)	N	Regression Equation	(mg/dL)	R	(mg/dL)
Serum	Abbott/TDx	54	0.964 x - 0.04	4.8	0.999	22.9 to 433.0
Plasma(y), Serum(x)	ADVIA IMS	50	1.005 x - 1.75	2.99	1.000	10.0 to 516.2

Interfering Substances

Interfering Substance	Interfering Sub. Conc. (mg/dL)	Ethanol Conc (mg/dL)	Effect (% change)
Bilirubin (unconjugated)	25	98.2	+1.2
Bilirubin (conjugated)	25	98.3	+1.6
Hemoglobin	1000	94.9	+2.7
Lipids (Triglycerides)	1000	95.8	+2.0

Analytical Range

Serum/Plasma(Lithium heparine):

0.7 to 500 mg/dL

Kenzeth T. Edds
Regulatory Affairs
Bayer Corporation
511 Benedict Avenue

511 Benedict Avenue Tarrytown, New York 10591-5097 Date

DEPARTMENT OF HEALTH & HUMAN SERVICES



Food and Drug Administration 2098 Gaither Road Rockville MD 20850

NOV 1 8 2002

Kenneth T. Edds, Ph.D. Manager, Regulatory Affairs Bayer Corporation 511 Benedict Avenue Tarrytown, NY 10591-5097

Re: k023184

Trade/Device Name: Ethanol Assay for the ADVIA® IMSTM

Regulation Number: 21 CFR 862.3040 Regulation Name: Alcohol test system

Regulatory Class: Class II Product Code: DIC; JIX Dated: September 20, 2002 Received: September 24, 2002

Dear Dr. Edds:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4588. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "http://www.fda.gov/cdrh/dsma/dsmamain.html".

Sincerely yours,

Steven I. Gutman, M.D., M.B.A.

Director

Division of Clinical Laboratory-Devices

Steven Butman

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

510(k) Number:
Device Name: Ethanol Assay for the ADVIA® IMSTM
Indications for Use: The Bayer ADVIA IMS Ethanol method is an in vitro diagnostic device intended to quantitatively measure ethanol (alcohol) levels in human serum or plasma (Lithium heparin). Such measurements are used in the diagnosis of ethanol toxicity and overdose.
(Division Sign-Off) Division of Clinical Laboratory Devices 510(k) Number KODIS
(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)

OR

Prescription Use / (Per 21 CFR 801.109)

(Optional Format 1-2-96)

Over-The-CounterUse____